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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,109	08/23/2001	Manfred Bromba	112740-274	9628
29177	7590	07/29/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			KIM, CHONG R	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 07/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/914,109

Applicant(s)

BROMBA, MANFRED

Examiner

Charles Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

1. The applicant's specification is objected to because it lacks the section heading for the "SUMMARY OF THE INVENTION". It appears that the heading belongs in the beginning of page 3. Appropriate correction is required.

### *Claim Objections*

The following quotations of 37 CFR § 1.75(a) and (d)(1) are the basis of objection:

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

(d)(1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a)).

2. Claim 25 is objected to under 37 CFR § 1.75 (d)(1) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Referring to claim 25, the phrase "deleting, after a user identification process has ended, the stored biometric record in the associated spatial position data of the preceding identification process; and overriding the previously stored biometric record and the associated spatial position data of the preceding identification process with the biometric record and the associated spatial position data of the current identification process" in lines 3-8 is not supported by the applicant's specification. Note that the Examiner was unable to find an instance in the applicant's specification that describes these features.

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3. Claims, 25, 26 are objected to under 37 CFR § 1.75 (a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Referring to claim 25, the phrase “the stored biometric record in the associated spatial position data” in lines 3-4 renders the claim ambiguous because it is unclear how the biometric record can be in the associated spatial position data. It appears that the applicant intended the phrase to read “the stored biometric record and the associated spatial position data”. Appropriate correction is required.

Referring to claim 26, the phrase “the preceding spatial identification data” in line 13 lacks antecedent basis. It appears that the applicant intended the phrase “the preceding spatial position data”. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 19, the phrase “approximately 50 um” in line 2 renders the claim indefinite because it is unclear what is meant by “approximately”. A similar rejection is applicable to claim 29.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17, 23, 24, 26, 27, 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang et al., PCT Publication No. WO 98/11750 (“Yang”).

Referring to claim 17, Yang discloses a method for biometric identification of a user, the method comprising the steps of:

a. acquiring, in a current user identification process, both a biometric record of the user and associated spatial position data of the biometric record relative to a reference position [page 10, lines 11-20 and page 11, lines 26-29. Note that the “token” is interpreted as the biometric record (see page 9, lines 25-28) and the “two-dimensional coordinates” of the minutiae is interpreted as the associated spatial position data]

b. storing both the biometric record and the associated spatial position data [page 10, lines 11-20 and figure 1. Note that the biometric record and associated spatial position data are stored in the central authentication system (CAS 106)]

c. reading out both a preceding biometric record and preceding associated spatial position data of a preceding user identification process which precedes the current user identification process [page 10, lines 11-30 and page 11, lines 26-29. Yang explains that the current token (biometric record) is compared with a token (preceding biometric record) that is stored in a database; wherein the comparison is based on matching the two-dimensional

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coordinates (spatial position data) of the minutiae in the current biometric record with the two-dimensional coordinates of the minutiae in the preceding biometric record. Thus, the process of comparing the current token with the stored token comprises the step of reading out both a preceding biometric record and preceding associated spatial position data of a preceding user identification process which precedes the current user identification process]

d. comparing the biometric record currently acquired and the associated spatial position with the preceding biometric record and the associated spatial position data [page 10, lines 11-30 and page 11, lines 26-29. See the discussion of (c) above]

e. rejecting the identification of the user if there is a defined degree of correspondence between the biometric record currently acquired and the preceding biometric record, and the spatial position data currently acquired is within a defined tolerance range from the preceding spatial position data [page 10, lines 11-30 and page 11, lines 26-29. Yang explains that the current token is compared with a preceding token, and the two tokens are considered a match when their two-dimensional minutiae coordinates are within a defined tolerance (page 11, lines 26-29). Yang also explains that if a current token matches a preceding token, then the identification of the user is rejected (page 10, lines 11-20)].

Referring to claim 23, Yang further discloses that the biometric record is fingerprint data (page 9, lines 25-28).

Referring to claim 24, Yang further discloses the step of determining, as the spatial position data, coordinates of at least one of branches and minuscules of the fingerprint on a contact area (page 11, lines 26-29).

Referring to claim 26, see the rejection of at least claim 17 above.

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Referring to claim 27, Yang further discloses an output device for outputting a result of the user identification process (page 10, lines 11-30. Note that the step of denying authorization of the call is interpreted as outputting a result of the user identification process).

Referring to claim 33, Yang further discloses a fingerprint sensor for acquiring a fingerprint as the biometric record and the associated spatial position data on a contact area of the fingerprint sensor (page 8, lines 5-35 and figure 1).

Referring to claim 34, Yang further discloses that the fingerprint sensor determines coordinates of certain features of the fingerprint on the contact area (page 11, lines 26-29).

Referring to claim 35, Yang further discloses that the certain features of the fingerprint area are at least one of branches and minuscules (page 11, lines 26-29).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18, 19, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al., PCT Publication No. WO 98/11750 ("Yang").

Referring to claim 18, Yang does not explicitly disclose that the tolerance range is less than 100 um. However, the Examiner notes that the specific tolerance range is not considered a patentable distinction because it would have been chosen by the user during experimentation in

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order to meet his/her specific requirements. Therefore, it would have been obvious to set the tolerance range of Yang to be less than 100 um. The suggestion/motivation for doing so would have been to accurately determine if the two tokens are a match, thereby enhancing the biometric identification process.

Referring to claim 19 as best understood, Yang does not explicitly disclose that the tolerance range is approximately 50 um. However, the Examiner notes that the specific tolerance range is not considered a patentable distinction because it would have been chosen by the user during experimentation in order to meet his/her specific requirements. Therefore, it would have been obvious to set the tolerance range of Yang to be approximately 50 um. The suggestion/motivation for doing so would have been to accurately determine if the two tokens are a match, thereby enhancing the biometric identification process.

Referring to claim 28, see the rejection of at least claim 18 above.

Referring to claim 29, see the rejection of at least claim 19 above.

7. Claims 20-22, 25, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yang et al., PCT Publication No. WO 98/11750 ("Yang") and Ross, U.S. Patent No. 6,195,447 ("Ross").

Referring to claim 20, Yang does not explicitly disclose the step of determining a mean value of positions of a plurality of individual features of the biometric record and using the mean values in the step of comparing.

Ross discloses the steps of determining a mean value of positions of a plurality of individual features of a biometric record in each user identification process, and using the mean



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values of two successive user identification processes in a step of comparing (col. 4, line 34-col. 5, line 27).

Yang & Ross are combinable because they are both concerned with fingerprint identification systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the comparing step of Yang so that it uses the mean values of Ross. The suggestion/motivation for doing so would have been to provide the capability of successfully matching the acquired fingerprint with a known fingerprint template (Ross, col. 4, lines 54-59). Therefore, it would have been obvious to combine Yang with Ross to obtain the invention as specified in claim 20.

Referring to claims 21 and 22, see the discussion of at least claim 18 above.

Referring to claim 25 as best understood, Yang does not explicitly disclose the steps of deleting, after a user identification process has ended, the stored biometric record and the associated spatial position data of the preceding identification process, and overriding it with the biometric record and the associated spatial position data of a current identification process.

Ross discloses the steps of deleting, after a user identification process has ended, the stored biometric record of the preceding identification process, and overriding it with the biometric record of a current identification process (col. 4, lines 4-19 and col. 5, lines 58-63).

Yang & Ross are combinable because they are both concerned with fingerprint identification systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the method of Yang to include the teachings of Ross. The suggestion/motivation for doing so would have been to enhance the fingerprint identification

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process by keeping the biometric record updated. Therefore, it would have been obvious to combine Yang with Ross to obtain the invention as specified in claim 25.

Referring to claim 30, see the rejection of at least claim 20 above.

Referring to claim 31, see the rejection of at least claim 21 above.

Referring to claim 32, see the rejection of at least claim 22 above.

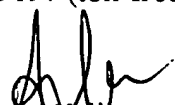
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck  
July 23, 2004

  
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